Reproductive Health Care Issues for Women Over 40

Satellite Conference
Wednesday, April 14, 2004
2:00-4:00 p.m., Central Time

Produced by the Video Communications Division
Alabama Department of Public Health

Faculty

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Objectives

- Discuss the health risks in relation to contraception.
- List the contraceptives appropriate for women over 40.
- Discuss benefits, risks, and alternatives to hormone therapy.
- Discuss the management of pelvic relaxation, osteoporosis and dysfunctional uterine bleeding in women over 40.

High Risk Women Over 40

- Diabetes
- HTN
- Smoking
- Dylipidemia

Contraceptive Options

- Depends on health status
- May want to consider continuous use
- Contraindications of each method

Matching Methods With Goals in Women Age 40+ Years

	Tubal Ligation	Vasectomy	Barrier Methods (Condoms and Spermicides)
Prevents unintended pregnancy	Yes	Yes	Yes
Minimizes hormonal fluctuations	No	No	No
Provides additional health benefits	Yes, ovarian cancer	No	Yes, STDs and HIV

Grimes et al. ***Modern Contraception: Updates from the Contraceptive Report***. 1997.

Matching Methods with Goals in Women Age 40+ Years

	DMPA Injectible	Patch/ Ring	IUD	Combination Ocs Cyclic and non cylic
Prevents unintended pregnancy	Yes	Yes	Yes	Yes
Minimizes hormonal fluctuations	Yes	Yes	No	Yes
Provides additional health benefits	Yes, decrease bleeding, decrease anemia	Yes, improve cycle regularity	Early detection of cervical cancer with all IUDs, Possible protection of endometrial cancer, decrease anemia, dysmenorrhea and PID with LNG IUDs	Yes (ie, ovarian/ endometrial cancers, bone protection, relief of hormonal fluctuations, cycle control, dysmenorrhea, others)

Grimes et al. *Modern Contraception: Updates from the Contraceptive Report*. 1997.

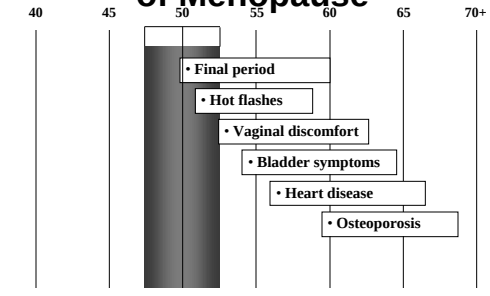
Making the Transition From OCs to HRT

- How to determine when a woman on OCs is going through menopause?
- Why switch from OCs to HRT?
- When to stop OCs and initiate HRT?

Changes Prior to Menopause

- ↑ in anovulatory cycles
- ↑ or ↓ in menstrual cycle length
- ↑ in FSH level (day 3)
- ↓ in inhibin B

Age-Related Consequences of Menopause



From Utian WH, 1980. Derived from van Keep and Kallarhata, 1973.

Need for Menopause Counseling and Treatment

- Number of women of postmenopausal age is increasing[1]
- Menopause-related estrogen deficiency is associated with numerous vasomotor and urogenital symptoms as well as bone loss
- New data about estrogen and hormone therapy are continuously emerging
- Media messages have been conflicting
- Patients have expressed confusion (media, Internet, friends, relatives)

[1]Day JC. Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050. 1996:52, 76.

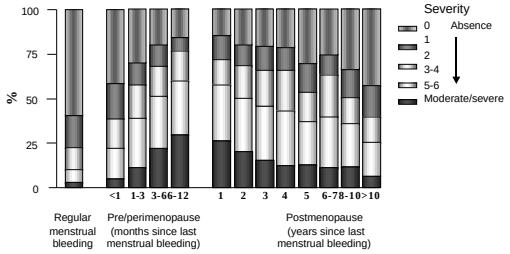
Menopausal Health Issues

- Vasomotor symptoms
  - Up to 85% of women entering menopause[1,2]
  - More than half of women report moderate to severe symptoms[2]
- Vulvar and vaginal atrophy
  - Genitourinary atrophy is the most consistent and inevitable consequence of estrogen deficiency[3]
  - If left untreated, vaginal atrophy progressively worsens over time[4]

Menopausal Health Issues (cont'd)

- Postmenopausal bone loss
  - Up to 20% of a woman's expected lifetime bone loss can occur in the years immediately following menopause[1]
  - Currently, about 30 million women have osteoporosis or low bone mass[2]
- ET/HT is the only therapy that alleviates menopausal symptoms and concomitantly prevents osteoporosis

Prevalence of Vasomotor Complaints



Oldenhave, et al. *Am J Obstet Gynecol.* 1993;168:772-780.

Appropriate Use of ET/HT

- Individualize therapy based on each patient's unique benefit and risk profile
- Estrogens and progestins should be prescribed at the lowest effective doses[1,2]
- Limit use to the shortest duration consistent with treatment goals and patient risks[1,2]
- Do not use for the prevention of cardiovascular disease[1,2]
- Reevaluate periodically[1,2]
  - Treatment goals and risks change over time

Hot Flash Triggers

- **Stress**
- **Hot and spicy foods**
- **Hot drinks**
- **Alcohol**
- **Warm environment**

Alternative Approaches Used for Vasomotor Symptoms

Lifestyle changes, cool environment

Vitamin E, dong quai, and black cohosh—no difference compared with placebo

Phytoestrogens

SSRI/SNRI = selective serotonin reuptake inhibitor/serotonin norepinephrine reuptake inhibitor.

Alternative Approaches Used for Vasomotor Symptoms

- Clonidine (patch or pill)
- Megestrol
- SSRI/SNRI therapy
- Gabapentin

SSRI/SNRI = selective serotonin reuptake inhibitor/serotonin norepinephrine reuptake inhibitor.

HRT For Relief of Vasomotor Symptoms (Severe)

- Start with low-dose
- Increase to .625 mg or equivalent after 3 months if no relief
- If severe, initial month-estrogen only
- Add progestin second month after relief obtained

Vasomotor Control Tips

- Difficult to control-strategies
  - Increase the estrogen
  - Consider transdermal therapy
  - Add testosterone

Genitourinary Symptoms Associated With Menopause

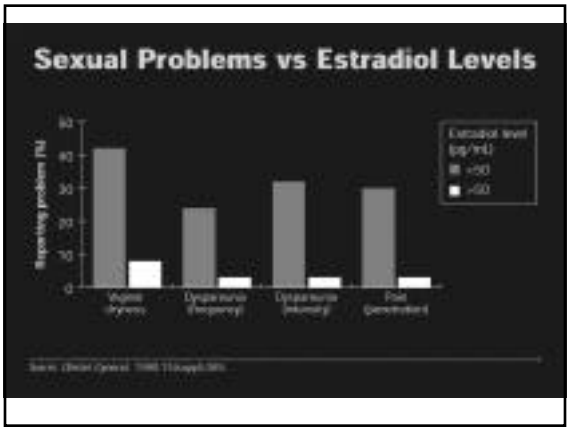
- Genital
- Irritation, burning, pruritus
- Leukorrhea
- Dyspareunia
- Decreased vaginal secretions
- Shortening/lessening of vaginal distensibility

*Controversial. Gambrell. *Hormone Replacement Therapy*. 1992. Brown, et al. *Obstet Clin North Am*. 1987;14:13.

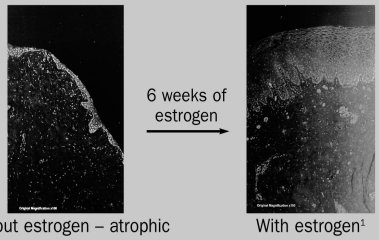
Genitourinary Symptoms Associated With Menopause

- Urinary
- Frequency, urgency
- Dysuria
- Nocturia
- Incontinence*

*Controversial. Gambrell. *Hormone Replacement Therapy*. 1992. Brown, et al. *Obstet Clin North Am*. 1987;14:13.



Vaginal Epithelium



Without estrogen – atrophic | With estrogen[1]

- Vagina/urethra highest concentration of estrogen receptors[2]
- Most efficient response with local application[3,4]

1. Freedman unpublished data.
2. Iosif et al. *Am J Obstet Gynecol.* 1981;141:817.
3. Elia et al. *Obstet Gynecol Surv.* 1993;48:509.
4. Weinberger. *Clin Obstet Gynecol.* 1995;38:175.

Clinical Pearls- Vaginal Atrophy

- **Maturation Index**
- **%parabasal/%intermediate/ %superficial**
  - **•Menopause: 80/20/00**
  - **•Adequate Estrogen: 00/80/20**

Clinical Pearls- Vaginal Atrophy

Vaginal pH

pH 4.5= premenopausal or postmenopausal on adequate estrogen

pH >5= decreased estrogen effect (in absence of pathogens)

Clinical Pearls- Vaginal Atrophy

- **Management**

If initial estrogen therapy is not helping, increase the dose of estrogen

Add topical therapy

- **Estrogen creams**
- **Lubricants**
- **Moisturizers**

Therapeutic Options

Vaginal lubricants and moisturizers

Estrogen vaginal cream

Estrogen ring

HRT, what regimen?

Sexual counseling

Androgen

Sexual Physiologic Changes with Aging

- **↓ Vaginal lubrication**
- **↑ Time to achieve vaginal lubrication**
- **↓ Vaginal elasticity, rugation, color**
- **↑ Petechiae and bleeding after minor trauma**
- **↓ Decrease in lactobacilli**
  - **↑ Vaginal pH**
  - **↑ Vulnerability to urogenital pathogens**

Sexual Physiologic Changes With Aging

- ↓ Superficial vaginal epithelial cells
- ↓ Collagen and adipose in vulva
- Labial involution and clitoral exposure
- Vagina thinner and paler

Bachmann et al. In: Lobo, ed. *Treatment of the Postmenopausal Woman: Basic and Clinical Aspects.* 2nd ed. New York: Lippincott Williams & Wilkins; 1999:195.

Sexual Function Declines With Menopause and Aging

- ↓ Sexual responsivity
- ↓ Sexual libido
- ↓ Sexual activity
- ↑ Vaginal dyspareunia
- ↑ Partner's problems in sexual performance
- ↓ Woman's positive feelings toward partner

Dennerstein et al. *Fertil Steril*. 2001;76:456.

Female Sexual Complaints/Dysfunction

- Affects 25%[1] to 43%[2] of women
- Multidimensional and multicausal combining biological, psychological, and interpersonal factors[1,2]
- Physically and emotionally distressing and socially disruptive[1,2]
- Increases with age[1]

[1]Bancroft J. *Arch Sex Behav*. 2003;In press.
[2]Laumann EO, et al. *JAMA*. 1999;281:537-44.

Female Sexual Dysfunction

- I: Sexual desire disorders:
  - Hypoactive sexual desire disorder
  - Sexual aversion disorder
- II: Sexual arousal disorder
- III: Orgasmic disorder

*International Consensus Development Conference on Female Sexual Dysfunction.
Basson R, et al. *J Urol*. 2000;163:888-93.

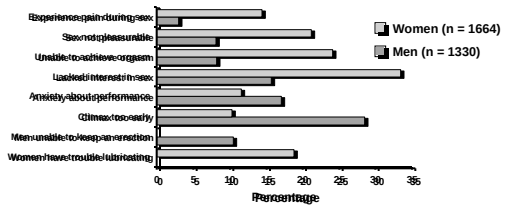
Female Sexual Dysfunction

- IV: Sexual pain disorders:
  - Dyspareunia
  - Vaginismus
  - Noncoital sexual pain disorder

*International Consensus Development Conference on Female Sexual Dysfunction.
Basson R, et al. *J Urol*. 2000;163:888-93.

Prevalence of Male and Female Sexual Complaints

- National Health and Social Life Survey Ages 18 to 59 Years



Laumann EO, et al. *The Social Organization of Sexuality: Sexual Practices in the United States*. Chicago, Ill: University of Chicago Press; 1994.

Risk Factors for Sexual Dysfunction

- Biological risk factors
  - Gender/age
  - Neuro/endocrine/vascular factors
  - Depression
  - General health
  - Medication (eg, antidepressants)

Leiblum SR. *J Gend Specif Med*. 1999;2:41-5.

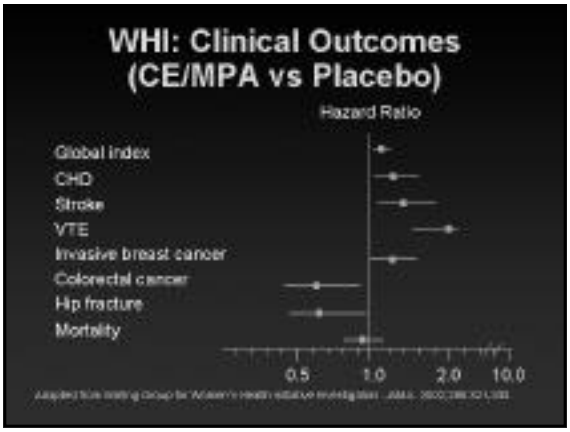
Risk Factors for Sexual Dysfunction

- Psychosocial risk factors
  - Emotional or stress-related problems
  - Physical/sexual abuse
  - Relationship conflict

Leiblum SR. *J Gend Specif Med.* 1999; 2:41-5.

Potential Explanations for Discordant Findings from Randomized Trials and Observational Studies Regarding Postmenopausal Hormone Therapy and Coronary Heart Disease

Methodologic differences •Confounding ("healthy user") bias •Incomplete capture of early clinical events
Biologic differences •Hormone regimen (formulation and dosage) •Characteristics of study population (endogenous estrogen level, time since menopause, and stage of atherosclerosis)



Clinical Outcomes in Women's Health Initiative (E+P vs. Placebo)

Outcome	Hazard Ratio (95% CI)
Global Index	1.15 (1.03-1.28)
CHD	1.29 (1.02-1.63
Stroke	1.41 (1.07-1.85)
Venous Thromboembolism	2.11 (1.58-2.82)
Breast Cancer	1.26 (1.00-1.59) *NS*
Colorectal cancer	0.63 (0.43-0.92)
Hip fracture	0.66 (0.45-0.98)
Mortality	0.98 (0.82-1.18) *NS*

Writing Group for the Women's Health Initiative Investigators. *JAMA.* 2002;288:321.

Putting WHI Risks Into Perspective

Outcomes	Increase risk per 10,000 women taking E+P for 1 year
CHD	7 more CHD events
Stroke	8 more strokes
VTE	18 more VTEs
Breast	8 more invasive breast cancers
Colorectal cancer	6 fewer colorectal cancers
Hip Fracture	5 fewer hip fractures

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WHIMS Outcomes

Outcome	E+P n = 2,229	Placebo n = 2,303	RR (95%CI)
Probable dementia	0	21	2.05 (1.21-3.48)
Mean (SD) F/U yrs Rate per 10,000 woman yrs	4.01 (1.21) 4 45	4.06 (1.18) 22	
Mild Cognitive Impairment	56	55	1.07 (0.74-1.55)
Mean (SD) F/U yrs Rate per 10,000 woman yrs	3.99 (1.23) 63	4.04 (1.20) 59	

Shumaker S et al. JAMA. 2003;289:2651-2662

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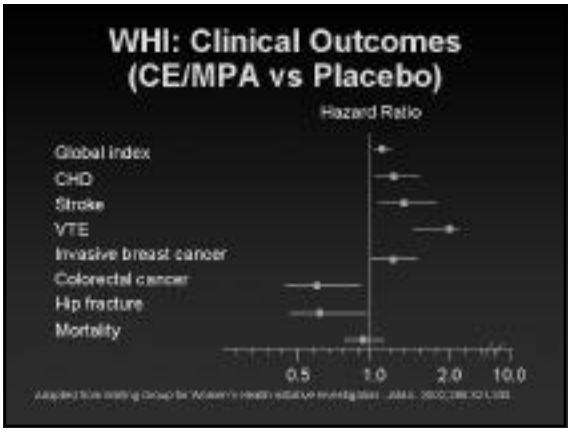

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Route of Administration

- **Oral vs transdermal metabolic/pharmacokinetic differences**
  - **Transdermal route avoids first-pass hepatic effect**
  - **Smaller transdermal doses achieve minimum effective dose**
  - **Transdermal route achieves steady-state plasma levels**
  - **Transdermal route achieves greater physiological estradiol/estrone ratio**

Scott RT Jr, et al. *Obstet Gynecol.* 1991;77:758–764.
Ibarra de Palacios P, et al. *Climacteric.* 2002;5:383–389.

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Ibarra de Palacios P, et al. *Climacteric.* 2002;5:383–389.

Transdermal Patch HT Direct Delivery of Drug Into Systemic Circulation

- **Low therapeutic doses***
- **Minimal hepatic protein synthesis/conversion of inactive metabolites**
- **Mimics ovarian delivery during early follicular phase in premenopausal women**

***Therapeutic levels achieved with smaller transdermal doses compared with oral therapy.**

A Novel Estrogen Therapy: Femring™

- **Only vaginal product that delivers adequate estrogen to treat both vasomotor and vaginal symptoms**
- **Vaginal ring (VR) that is efficacious for a 3-month period**
- **Available in 2 strengths: 0.05 mg/day and 0.1 mg/day estradiol**
- **Soft and flexible design for easy self-insertion and removal by patient**
- **High level of patient acceptability and satisfaction**

Al-Azzawi F, et al. Poster presented at: British Menopause Society Congress; June 2001.
Buckler H, Perry W. Poster presented at: British Menopause Society Congress; June 2001.

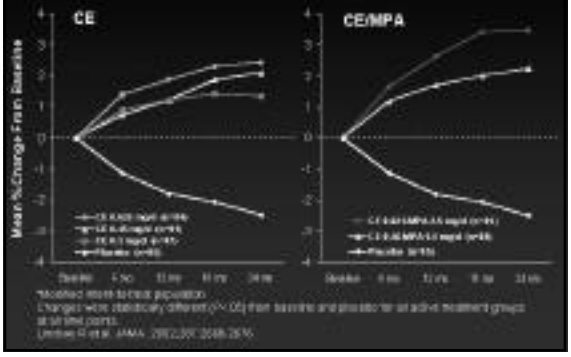
Women's HOPE Study
Hot Flash Analyses

- **Patients analyzed (n=241)**
  - At least 7 daily or 50 total moderate to severe hot flashes for 7 days prior to study
- **Number of hot flashes daily**
- **Severity of hot flashes daily**
  - **Mild** – fleeting warm sensation without sweating; does not disrupt activity
  - **Moderate** – warm sensation with sweating; does not disrupt activity
  - **Severe** – hot sensation with sweating; disrupts activity

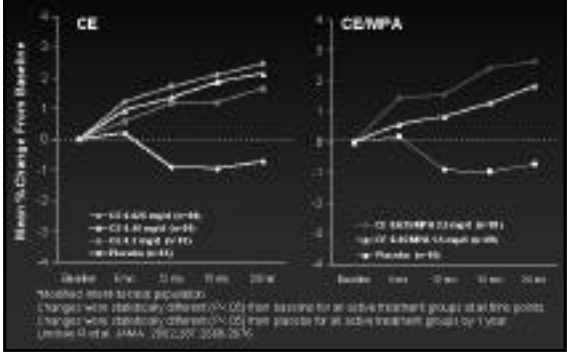
Treating Vaginal Symptoms

- Oral ET/HT is indicated for the treatment of moderate to severe symptoms of vulvar and vaginal atrophy associated with menopause[1,2]
  - Topical vaginal products should be considered when prescribing solely for the treatment of symptoms of vulvar and vaginal atrophy[1,2]
- CE cream is indicated for the treatment of atrophic vaginitis and kraurosis vulvae[3]

Women's HOPE Study: Spine BMD*



Women's HOPE Study: Total Hip BMD*



ET/HT and the Endometrium

- Risks for endometrial hyperplasia and cancer increase with unopposed estrogen use[1,2]
- When progesterone is added, risks for endometrial hyperplasia and cancer are significantly reduced[1,3]

Women's HOPE Study
Analysis of Hyperplasia

- Primary end point: incidence of endometrial hyperplasia
- Endometrial biopsies were performed at baseline, 6 months, and 1 year
- Diagnosis of endometrial hyperplasia required consensus of 2 pathologists
- A third pathologist was consulted in the event of disagreement

Alternative Medicines

- **Broad term for many beliefs**
- **Not accepted by allopathic medicine**
- **Involves many different forms of treatment**

Just the Facts

- **42% of Americans use some form of alternative therapy**
- **5% use as there only therapy**
- **40% tell their PCP**
- **Out of pocket expense—27 billion dollars**
- **Most likely to use**
  Female
  White
  Middle age
  Affluent

Facts

- _ of all current drugs are derived from plants
- Americans spend > 4 billion dollars on herbs per year
- Over the last decade herbal use increased 400%
- 15 million US adults folk prescription medicines with herbs

Scope of Alternative Medicine Use in the U.S.

- 1990 Survey
  - 1539 adults surveyed
  - Utilization prevalence: 33.8%
  - Probable alternative medicine use: 36%
  - Estimated 427 million visits
  - 64% paid out of pocket
- 1997 Survey
  - 2055 adults surveyed
  - Utilization prevalence: 42%
  - Probable alternative medicine use: 46%
  - Estimated 629 million visits
  - 58% paid out of pocket

Eisenberg DM. *JAMA*. 1998;280:1569-75.

Advising Patients About Herbal Therapies

- Ask all patients about their use of herbal and dietary supplements, and document
- "Natural" does not necessarily mean safe
- Avoid use in infants, children, and during pregnancy

Cirigliano et al. *JAMA.* 1998;280:1565.

Advising Patients About Herbal Therapies

- Herb/drug interactions occur
- Lack of standardization may result in variability in content and efficacy

Cirigliano et al. *JAMA.* 1998;280:1565.

Soybeans: Nature's SERM

Phytoestrogen Studies

- Several uncontrolled studies have shown reduced hot flushes by as much as 30%-40%
- Randomized, double-blind, placebo-controlled study (n=104) – hot flushes significantly reduced with isolated 60 g soy protein (45%) compared to placebo (30%)

Mackey et al. *Climacteric.* 1998;1:302; Adlercreutz et al. *Lancet.* 1992;339:1233; Adlercreutz et al. *Ann Med.* 1997;29:95; Messina et al. *Lancet.* 1997;350:971; Adlercreutz. *Environ Health Perspect.* 1995;103:103; Albertazzi et al. *Obstet Gynecol.* 1998;91:6.

Black Cohash

- Buttercup family
- Mechanism of action unclear
- Dosage: 40 mg BID
- Estrogen like

Black Cohosh

- Black cohosh and estrogen equally reduced menopausal hot flashes compared to placebo
- After 4 weeks of black cohosh twice daily for 6–8 weeks (n=629)
  - 80% of women showed symptom improvement
  - 93% had good tolerance with no side effects

Stoll. *Therapeuticon.* 1987;1:23; Stolze. *Gyne.* 1982;3:14; Ansbacher. *The Female Patient.* 2000;25:15.

Black Cohosh

- May interfere with other exogenous estrogen therapy
- Patients contraindicated for estrogen should not take black cohosh

Stoll. *Therapeuticon.* 1987;1:23; Stolze. *Gyne.* 1982;3:14; Ansbacher. *The Female Patient.* 2000;25:15.

Wild Mexican Yams

- No proven benefits
- Not bioavailable in humans

Progesterone Products

- Wild Mexican Yams
  - Women don't have enzymes required to produce progesterone from wild Mexican yams

Progesterone Products

- Progesterone Creams
  - Transdermal absorption of progesterone may not result in levels high enough to protect the endometrium
  - More data is required before progesterone creams can be recommended

Transdermal Progesterone Cream

- Randomly assigned to 20 mg progesterone or placebo daily
  - All also received multivitamin plus 1,000 mg Ca++
- Significant improvement in vasomotor symptoms
  - Progesterone 83% vs placebo 14%

Leonetti et al. *Obstet Gynecol.* 1999;94:225.

Transdermal Progesterone Cream

- BMD testing at outset and 1 year
  - No protective effect on BMD in either group

Leonetti et al. *Obstet Gynecol.* 1999;94:225.

Chasteberry

- Like a progesterone
- Used for heavy bleeding
- Used with "estrogen-promoting" herbs
- Used for dryness, libido, and depression
- Dosage: 40 mg on empty stomach

Chasteberry

- Studies its efficacy used for treating PMS and "menopause problems" are inconsistent
- Contraindicated in pregnancy, lactation, HRT
- Effective dose unknown and standardized products are difficult to find
- Side effects: GI upset, headaches in <2

Physician's Guide to Alternative Medicine. 2000.

Red Clover

- Red clover extracts have not proven beneficial for menopausal symptoms
- Coumarins in clover may cause clotting problems

Advising Patients About Herbal Therapies

- Ask all patients about their use of herbal and dietary supplements, and document
- "Natural" does not necessarily mean safe
- Avoid use in infants, children, and during pregnancy
- Herb/drug interactions occur
- Lack of standardization may result in variability in content and efficacy

Cirigliano et al. *JAMA.* 1998;280:1565.

Advise to Patients

- Product label
- Manufacturer
- Standardize extracts
- Prescription drugs
- Talk to PCP
- Learn as much as possible about the product

Cautions

- Surgery
- Contamination
- Drug interaction
- Safety

Early Bone Loss (Osteopenia)

- Up to 20% of expected lifetime bone loss occurs in the first 5 to 7 years following menopause
- Change in bone architecture accompanying early bone loss increases fracture risk
  - Each standard deviation (SD) reduction in bone mass doubles risk of fracture

Early Bone Loss (Osteopenia)

- Fractures are associated with significant financial costs, morbidity, mortality, and reductions in quality of life

Impact of Osteopenia

- Approximately 40% of women older than 50 years are osteopenic
  - Up to 20% of expected lifetime bone loss occurs in the first 5 to 7 years following menopause
- BMD testing may prompt osteopenic patients to make behavioral changes (such as exercise, smoking cessation, calcium supplementation, and HRT initiation) that may reduce further bone loss

Impact of Osteoporosis

- A woman's risk of hip fracture alone is equal to her combined risk of breast, uterine, and ovarian cancer
- Hip fracture may result in 10%-20% excess mortality within 1 year

Melton LJ. *J Bone Miner Res.* 1995;10:175-176.
Cummings SR. *N Engl J Med.* 1995;332:767-773.
National Osteoporosis Foundation Web site. Available at: http://www.nof.org/osteoporosis/stats.htm. Accessed June 13, 2001.

Osteoporosis: Magnitude of the Problem in the U.S.

- Affects >25 million women
- 250,000 hip fractures/year in women
- 1.5 million fractures/year
- 33% of Caucasian women will fracture their hips

Melton et al. *J Bone Miner Res.* 1997;12:16;Ray et al. *J Bone Miner Res.* 1997;12:24.
Cooper et al. *Trends Endocrinol Metab.* 1992;3:224; National Osteoporosis Foundation

Osteoporosis: Magnitude of the Problem in the U.S.

- 25% of Caucasian women will fracture their spines
- 25% of African American women will fracture their hips
- Annual cost estimated to be $13.8 billion

Melton et al. *J Bone Miner Res.* 1997;12:16;Ray et al. *J Bone Miner Res.* 1997;12:24.
Cooper et al. *Trends Endocrinol Metab.* 1992;3:224; National Osteoporosis Foundation

Risk Factors for Osteoporosis*

- Family history
- Ethnicity
- Early menopause
- Premature menopause
- Medical menopause
- Corticosteroid use

*Risk factors identify only 50% of women with low BMD

Risk Factors for Osteoporosis*

- Hypoestrogenism
- Excessive exercise
- Anorexia, bulimia
- Hyperthyroidism, excessive thyroxine therapy
- Cigarette smoking

*Risk factors identify only 50% of women with low BMD

National Osteoporosis Foundation Guidelines

- Perform BMD tests for all postmenopausal women with fractures
- BMD tests recommended for:
  - Postmenopausal women ≤65 years with one or more risk factors
  - All women >65 years
- Calcium intake: 1200 mg/day

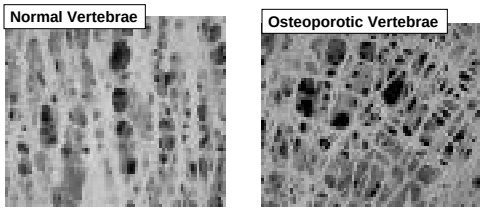
National Osteoporosis Foundation Guidelines

- Vitamin D intake: 400-800 IU/day for high-risk patients
- Exercise: regular weight-bearing, muscle strengthening
- Avoid smoking, consume alcohol in moderation

National Osteoporosis Foundation Guidelines

- **Treat all vertebral and hip fractures**
- **Pharmacologic options: ERT/HRT, bisphosphonates, raloxifene, calcitonin**

Epidemiology of Osteoporosis



Sources: WHO, 1996; NOF, 1999.

Clinical Impact of Vertebral Fractures

Age 66

Age 75

Courtesy of Stuart Weinerman, MD.

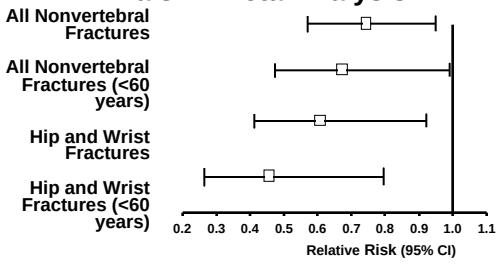
Effect of Osteoporosis Therapies on Fracture Prevention

Comparison of Fracture and BMD by Therapy

Therapy*	Decreases vertebral fracture Rates	Approximate Increases in BMD (%) †
Estrogen (CEE)	Yes‡	5-6
Alendronate	Yes‡	5-8
Risedronate	Yes	5-6
Calcitonin	Yes‡	1-2
Raloxifene	Yes‡	1-2
Calcium	No§	1-3
Fluoride	Yes/no‡	10 (? Architecture)
Calcitriol	Yes/no	1-2
Thiazides	Yes/no	1-2
Statin	Yes/no	1-2

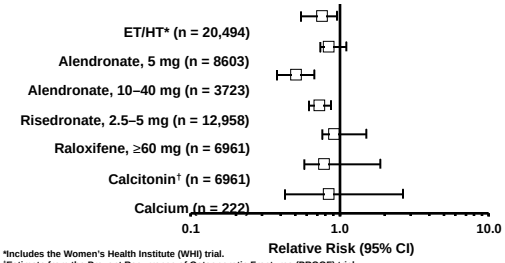
*all therapies include calcium supplementation; †treatment time 2-3 years; ‡dose effect; §Does not decrease hip fractures. ¶Except for patients with prior low calcium intake

Relative Risk of Nonvertebral Fractures With HT in Randomized Trials: A Meta-Analysis



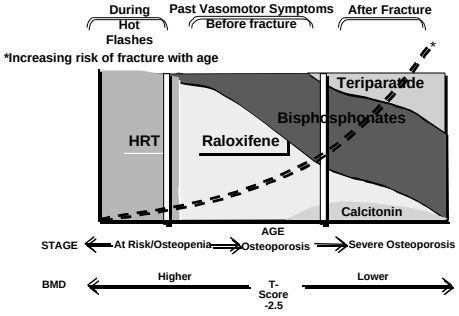
Torgerson DJ, Bell-Syer SEM. *JAMA.* 2001;285:2891-7.

Meta-Analysis of Osteoporosis Therapies: Nonvertebral Fractures

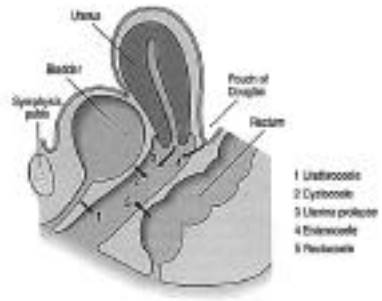


*Includes the Women's Health Institute (WHI) trial.
†Estimate from the Prevent Recurrence of Osteoporotic Fractures (PROOF) trial.
Cranney A, et al. *Endocr Rev*. 2002;23:570-8. *Endocrine Rev*. 2002;23:495-578; Rosen C.
Presentation for ASBMR at NIH Scientific Workshop: Menopausal Hormone Therapy, October 23-24, 2002.
Available at: http://www4.od.nih.gov/orwh/htslides/rosen2.ppt. Accessed 1/18/03.

Osteoporosis Therapy Options Postmenopausal Women

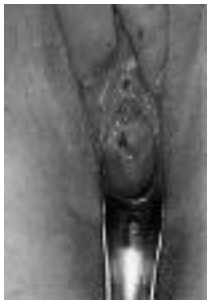


Genital Prolapse



Cystocele

- **Herniation of the bladder downward into the anterior vaginal canal**



Cystocoele

- **A cystocoele with the bladder bulging into the vagina.**

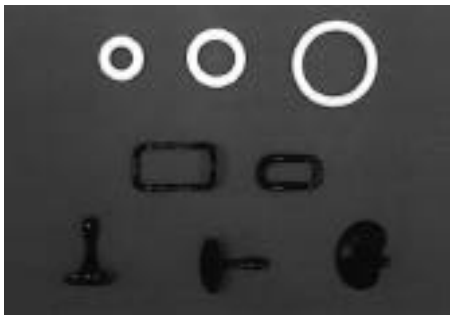
Rectocele

- **Herniation of the rectum through the posterior vaginal wall**

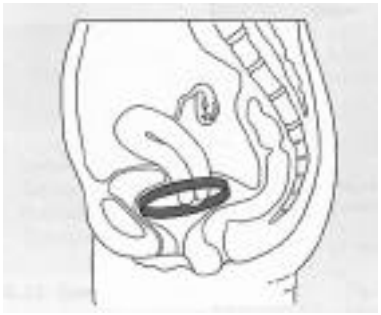
Uterine Prolapse

Uterine Prolapse

Rings and Pessaries



Ring Pessary In Position



Surgical Management

- Hysterectomy
- Anterior/Posterior colporraphy
- Vaginal vault suspension

Abnormal Bleeding 35-45

- Anovulation
- Endometrial hyperplasia
- Fibroids
- Adenomyosis
- Endometrial CA
- Polyps

Abnormal Bleeding >45

- Estrogen therapy
- Endometrial hyperplasia
- Endometrial CA
- Coital injuries
- Fibroids

Physical

- Body habitues
- Hair distribution
- Petechiae
- Thyroid exam
- Breast exam
- Pelvic exam

Differential Diagnosis

- General
- Ovulatory problems
- Anovulatory problems
- Pregnancy

Ovulatory

- Shorten follicular or luteal phase
- Polyps
- Fibriods
- Systemic disease
- IUD
- Cancer
- PID

Anovulatory

- Immature HPOA
- PCO
- Perimenopause
- Cancer
- Endometrious

Evidence of Ovulation

- Menstrual intervals
- Cyclic body changes
- Increased BBT
- Luteal phase progesterone of 3mg/ml
- Secretary changes on endometrial biopsy

Anovulatory Cycles

- Prolonged/irregular menses
- No increased BBT
- Signs of excessive androgens
- Proliferative changes only in endometrial biopsy

Laboratory Assessment

- Pregnancy test
- BBT chart
- Serum progesterone
- Endometrial biopsy
- PAP
- Cervical cultures
- H & H

As Needed

- TSH
- FSH
- LH
- DHEA
- Prolactin

Remember:

Postmenopausal bleeding is endometrial cancer until proven otherwise

Endometrial Cancer: Risk Factors

- Age
- Obesity
- PCO
- Unopposed exogenous estrogen
- Diabetes
- Family or personal history of ovarian and breast cancer
- Nulliparity
- Late menopause

Management

- Pharmacological
  - antibiotics
  - hormonal
  - NSAID
- Surgical

Age cannot whither her, not stale her infinite variety

. . . William Shakespeare

Upcoming Programs

Tuberculosis: Past, Present & Future
Friday, April 16, 2004
2:00-4:00 p.m. (Central Time)

Implementing Self-Management Education: Successes & Challenges in Arthritis
Tuesday, April 20, 2004
12:00-3:00 p.m. (Central Time)

Upcoming Programs

What to Expect From Your Local Hospital's Response to Emergency Events
Thursday, April 22, 2004
12:00-1:30 p.m. (Central Time)

Bridging Traditional Environmental Health and Health Promotion
Wednesday, May 5, 2004
2:00-3:00 p.m. (Eastern Time)

Upcoming Programs

Transforming Vision to Reality: Potential Power of Partnership
Thursday, May 6, 2004
2:00-3:00 p.m. (Eastern Time)

Principles for Effective Communication of Health Risks in High Concern, High Stress Situations
Friday, May 7, 2004
2:00-3:00 p.m. (Eastern Time)

For a complete listing of all programs, visit our website:
www.adph.org/alphtn